

Work Order ID 159357

Friday, April 07, 2017 2:21:16 PM

159357

Page 1

Item ID: 646.3912 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Shim
 Start Date: 4/8/2017 Start Qty: 25.00 ***25*** Cust Item ID:
 Required Date: 4/17/2017 Req'd Qty: 25.00 ***25*** Customer:
 Reference: SCHEDULED/S

Approvals: Process Plan: DAS 21 9-89 Date: APR 07 2017 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
646.3900	N/C

110

0.03

110

Waterjet

FLOW CNC Waterjet

Memo

1-Cut as per Dwg

Dwg Rev: N/C

Prog Rev: N/C

2-Deburr if necessary

0.46

(25)

04/17/19

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Quality Control

Memo

0.25

(25)

04/17/19

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

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24x 80175-1

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Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
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Page 3

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 *160* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.50				24			DAS 38 9-80 MAY 02 2017
170 *170* Packaging Packaging	Identify as per dwg & Stock Location <u>CC10/b</u> Memo ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING THE P# AND REV***	0.00 0.25				24			DAS 8 9-80 MAY 04 2017
180 *180* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 2.50							17/5/8 JA DAS 21 9-80 MAY 04 2017

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Misidentified ☐	Past Due ☐																																																																

Picklist Print

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Page 1

Work Order ID: 159357

159357

Parent Item: 646.3912

646 3912

Parent Item Name: Shim

Start Date: 4/8/2017

Required Date: 4/17/2017

Start Qty: 25.00

Required Qty: 25.00

Comments: IPP REV:A 12.10.23 NEW ISSUE DD VERF:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MC1095S.020		Purchased	No			110	sf	8.1000	0.02	0.526315			

MC1095S 020

C1095 Blue Tempered Spring Steel Sheet .020 mcmaster p/n: 9036K499

04/17/19

Location

Loc Qty

Loc Code

MAT019

8.1

M130477

0.1

M135525

8

6

DQA: _____ Date: _____

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Description Work Order Deviation				Disposition					
								Completed By	
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Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

ENGINEERING CHANGE NOTICE NO.

05243

SHEET 1 OF 1

DWG NO. 646.3900

REV: N/C

PREPARED BY

J. BECKER

DATE: 11/13/15

EFFECT ON DWG

☐ INC. ☒ UNINC.

DWG TITLE: SHIM

APPROVED BY:

ENGR. *[Signature]*

MFG

[Signature]

QC

[Signature]

EFF.

CURRENT ORDER

REASON: REVISED VIEWS. UPDATED TEMPLATE AND TITLE BLOCK.

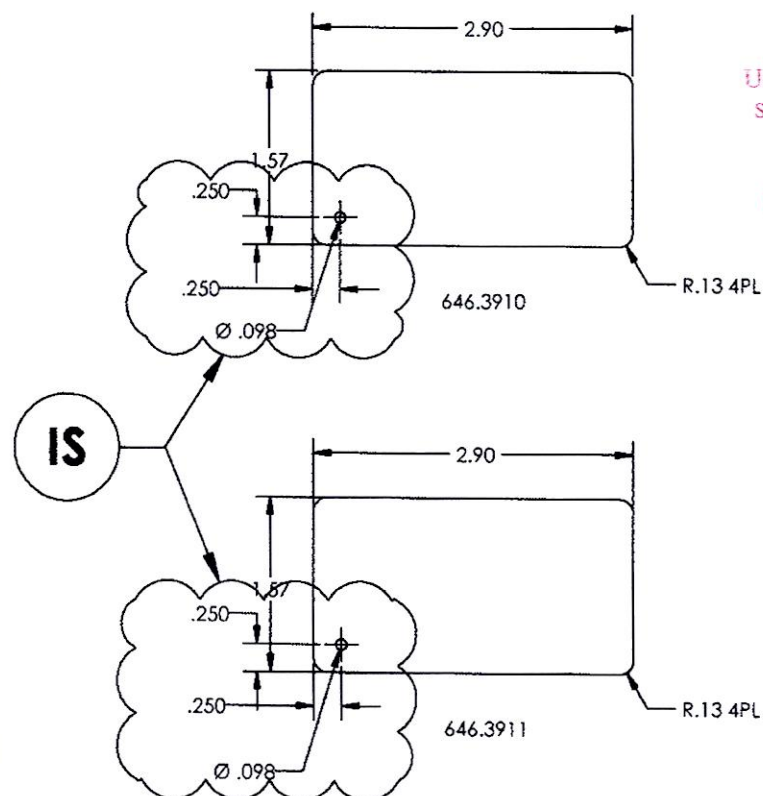
ECR:

15-275

ACTION ITEM:

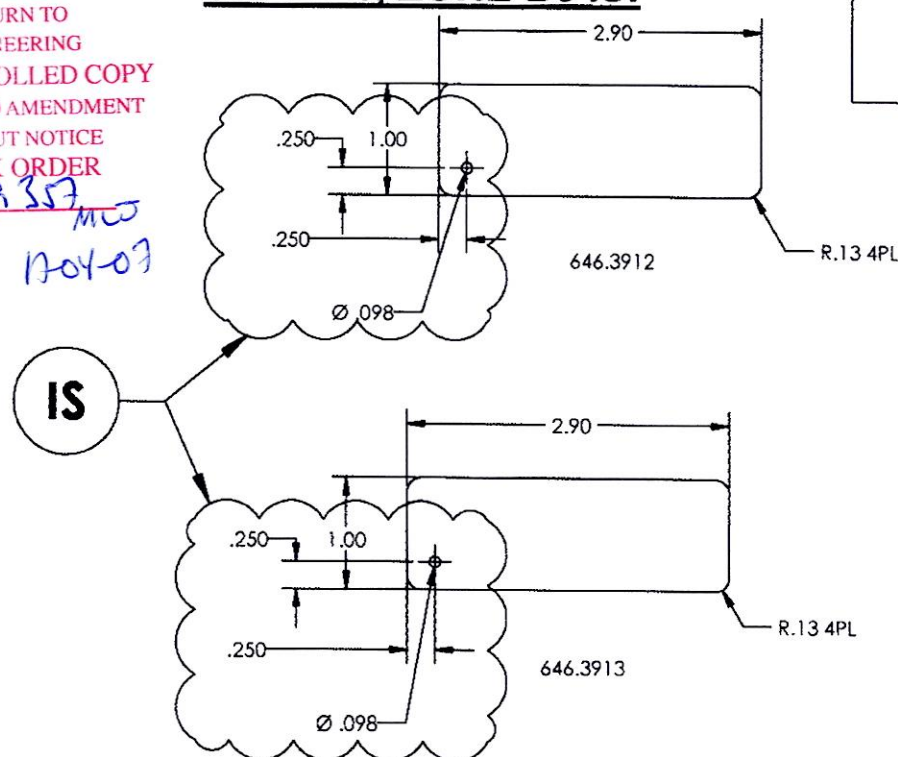
1. N/A.

SHEET 1, ZONE B2 IS:



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 159357 MCO
1704-07

SHEET 1, ZONE B5 IS:



SHEET 1, ZONE C2 IS:

SHEET 1, ZONE C5 IS:

DOCUMENTS EFFECTED:

☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM

CHANGE CATEGORY

☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED

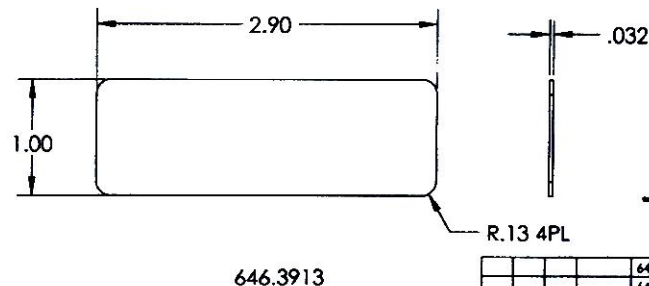
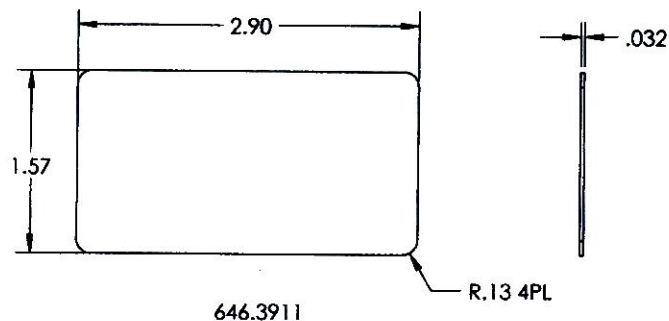
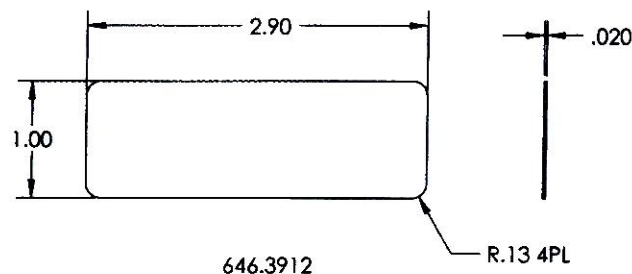
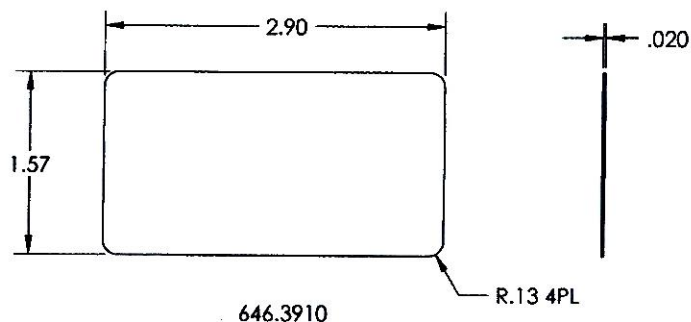
☐ YES ☒ NO

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

NOTES:

- 1 MATERIAL: SHIM STOCK, C1095 BLUE-TEMPERED SPRING STEEL
- 2 FINISH: CAD PLATE PER QQ-P-416 TYP II CL2
- 3 IDENTIFY IAW MPP-120



UNINCORPORATED ECN(s)

05243

		646.3913	SHIM			
		646.3912	SHIM			
		646.3911	SHIM			
		646.3910	SHIM			
	FIND #	PART #	DESCRIPTION	MATL	SPEC.	
QTY			PARTS LIST			
NEXT ASSY (S)			APICAL INDUSTRIES			
646.4000			2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300			
ORIGINAL DATE: 10-01-98 DRAWN BY: S. HUFF CHECKED BY: P. BRAVO DESIGNED BY: P. BRAVO CONTRACT NO:			SHIM			
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS .XX 3 PLACE DECIMALS .XXX ANGLES ± .5°			REV. H/C			
SCALE: NONE			SHEET 1 OF 1			



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO36054**

Purchase Order Date 4/24/2017

PO Print Date 4/24/2017

Page Number 2 of 4

Order From :

VC-ALT01

Ship To : DART AEROSPACE LTD

GROUP ALTECH
2455 HALPERN

ST LAURENT, MONTREAL H4S 1N9

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

514-335-3666

Ship To Contact

Ship To Phone

Ship Via:

FedEx Overnight collect

Ship Acct:

3 159357

646.3912 SHIM

5/2/2017

Yes

5/2/2017

CAD PLATE PER QQ-P-416, TYPE II, CL2

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FOB Origin

24.00

\$6.71

\$160.92

Line Total:

\$160.92

4 159793

646.3912 SHIM

5/2/2017

Yes

5/2/2017

CAD PLATE PER QQ-P-416, TYPE II, CL2

20.00

\$6.71

\$134.10

Line Total:

\$134.10

5 158923

647.8510 INSERT

5/2/2017

Yes

5/2/2017

FINISH: PASSIVATE PER MIL-S-5002 TYPE 6

20.00

\$2.22

\$44.44

Line Total:

\$44.44

Note:

4/24/2017



2455, Halpern, Saint-Laurent, QUÉBEC, H4S 1N9
Tel.: (514) 335-3666 Fax.: (514) 335-3868
Internet : www.groupaltech.com

Bon de livraison / Packing Slip
et / and
Certificat de conformité / Certificate of Compliance

Bon-Livraison / Pk.Slip # : 126890-1 28/04/2017
Bon-Commande. / W.Order # : 126890
Client P.O. # : 36054
Transport :

Envoyé à / Ship to

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY
ONTARIO, CANADA K6A 1K7

Commandé par / Order by

DART AEROSPACE LTD (1427)
1270 ABERDEEN STREET
HAWKESBURY
ONTARIO, CANADA K6A 1K7

#	No. Job No. Réf	NoSerie / Part Number Nom Produit / Product	Traitement Process	Poids Weight	Qté Qty	Envoyé Sent	A venir BO
1	UNIT	647.7703 Rev.	CADMIUM YELLOW PER QQ-P-416F TY:2 CL:1 + HYDROGEN ENBRITALMENT RELIEF (BAKE)	0.00	7	7	0
2	UNIT	647.7703 Rev.	CADMIUM YELLOW PER QQ-P-416F TY:2 CL:1 + HYDROGEN ENBRITALMENT RELIEF (BAKE)	0.00	6	6	0
3	UNIT	646.3912 Rev.	CADMIUM QQ-P-416F TY:2 CL:2 + HYDRO EMBRITAL RELIEF	0.00	24	24	0
4	UNIT	646.3912 Rev.	CADMIUM QQ-P-416F TY:2 CL:2 + HYDRO EMBRITAL RELIEF	0.00	20	20	0
5	UNIT	647.8510 Rev.	PASSIVATION PER QQ-P-35	0.00	20	20	0
6	UNIT	647.2511 Rev.	PASSIVATION PER AMS 2700	0.00	13	13	0
7	UNIT	647.8512 Rev.	PASSIVATION PER AMS 2700	0.00	12	12	0

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements
Our financial and legal responsibility will not be higher than the amount of invoice.